CLAIMS

Claims 1-8 (previously canceled)

Claim 9. (previously amended). Spring/mass vibratory force coupler with variable damping and variable spring stiffness for coupling masses to a reference mass, comprising

a first mass coupled to a second mass via a first spring and a second spring, independent of the first spring, arranged in parallel, the first spring and the second spring being of a type independently chosen from the group consisting of one or more in combination of a torsion spring, coil spring, bending spring, longitudinal spring and gas pressure spring,

a damper arranged between the second spring and the first mass wherein a damping function of the damper is continuously variable based on an application of variable voltage to an electrorheological or magnetorheological fluid contained therein so as to provide a continuously variable spring stiffness, wherein when the damping function of the damper is turned off, the second spring couples the first mass and the second mass without any damping function.

Claim 10. (previously amended)Device according to Claim 9, further comprising at least one absorber mass connected to the first mass by means of a first spring/damper element which may be connected to a voltage source.

Claim 11. (previously amended) Device according to Claim 10, wherein connection to a voltage source takes place by means of a coupling element based on an electrorheological or magnetorheological fluid.

Claim 12. (presently amended) Spring/mass vibratory force coupler with variable damping and variable spring stiffness for coupling masses to a reference mass, comprising

a first mass coupled to a second mass via a first spring and a second spring, independent of the first spring, arranged in parallel, the first spring and the second spring being of a type independently chosen from the group consisting of one or more in combination of a torsion spring, coil spring, bending spring, longitudinal spring and gas pressure spring,

a damper arranged between the second spring and the first mass wherein a damping function of the damper is continuously variable based on an application of variable voltage to an electrorheological or magnetorheological fluid contained therein so as to provide a continuously variable spring stiffness, wherein when the damping function of the damper is turned off, the second spring couples the first mass and the second mass without any damping function~~Device according to Claim 10~~,

at least one absorber mass connected to the first mass by means of a first spring/damper element which may be connected to a voltage source, and ~~further comprising~~

at least one auxiliary mass which is connected to the absorber mass by means of a second spring/damper element, which may be connected to a voltage source.

Claim 13. (previously amended) Device according to Claim 12, wherein the spring/damper elements are a combination of torsion, coil or gas-pressure springs with dampers based on electrorheological fluids or magnetorheological fluids.

Claim 14. (previously amended) A method for modifying mechanical natural vibrations in machines, vehicle running gear or motors selected from the group consisting of balancing machines, machine tools, unbalance generators, testing machines, resonance testing machines, alternate-bending machines, screen conveyors, eccentric presses, crank mechanisms, vibration and resonance drives, vibratory gear mechanisms, internal combustion engines, electric motors and engine mounts which comprises coupling said machines,

vehicle running gear or motors to a reference mass with the spring/mass vibratory force coupler of claim 9.

Claim 15. (previously canceled)